

DVB-T2/T & ISDB-T Diversity 2/4/8 Receiver

The new HDR receivers perform DVB-T2, DVB-T and ISDB-T demodulations. DVB-T2 modulation outperforms DVB-T modulation and offers a much higher data rate, and therefore, a higher quality signal or much more robust signal than DVB-T, enabling longer and more complex links.

There are 3 different receivers within the HDR series. The HDR-102 diversity 2, the HDR-104 diversity 4 and the HDR-108 diversity 8, in DVB-T2, DVB-T and ISDB-T demodulations, using spatial diversity based on MRC (Maximum Ratio Combining) technique.

This receiver features H.264 and MPEG-2 decoder for high definition (HD) and standard definition (SD) signals. H.264 compression enables HD signal transmission and reception using 40% lower bitrate than conventional MPEG-2 systems. Moreover, it works in 4:2:2 with 10 bits. MPEG-2 has been included so that the new HDR diversity receivers are compatible with previous SVP transmitter systems.

Based on NTT H.264 compression technology, SVP Broadcast Microwave's diversity receivers offer the highest video quality with minimum end-to-end latency available in the market: 33 ms. For added security, they are compatible with BISS and AES encryptions.

These new generation receivers have several outputs: 3G, HD/SD-SDI, HDMI, Transport Stream over IP and analogue video outputs. They offer simultaneously the received signal in all outputs. SDI embedded, HDMI embedded, analogue and AES audio outputs are available as standard. User data or GPS data can be received over the data channel.

ASI input and Transport Stream over IP input enable its use as a standalone decoder. Besides, the ASI output and the Transport Stream over IP output enable the user to handle the receiver as a demodulator.

The easy control, operation and monitoring make our receivers very manageable. User-friendly interfaces are available on: the front panel and display, serial commands, SNMP and web-browser.



H.264 4:2:2 10 bits

DVB-T2

FEATURES

- MRC Diversity 2, 4 or 8
- NTT H.264 compression technology at 4.2.2.
- Highest video quality available
- Lowest Delay in H.264: 33 ms
- Power supply: 11 – 36 VDC and 100 - 240 VAC
- BISS-1 and BISS-E encryptions
- HDMI output

OPTIONS

- Transport Stream over IP with FEC
- AES-128 and AES-256 encryption
- Integrated autotracking antenna controlled by GPS and Compass
- KLV metadata GPS extractor for autotracking

APPLICATIONS

- Fixed receiver in central receiver points
- Wireless camera links
- Portable receiver
- High-performance decoder

Characteristics

RF Stage DVB-T2 and DVB-T

Frequency range:	1.3 to 10.5 GHz
Tuning Step:	10 kHz
Input level range:	DVB-T2 @ 2 GHz: -20 to -102 dBm (4 Mbit/s) DVB-T2 @ 5 GHz: -20 to -101 dBm (4 Mbit/s)
Diversity:	2 (HDR-102), 4 (HDR-104) or 8 (HDR-108) in DVB-T2 2 (HDR-102), 4 (HDR-104) or 8 (HDR-108) in DVB-T 2 (HDR-102), 4 (HDR-104) or 8 (HDR-108) in ISDB-T
Diversity Techniques:	MRC (Maximum Ratio Combining) Switching
IF input:	Up to 8 TNC (50 MHz)
IF bandwidth:	150 to 880 MHz (MRC) 70 to 880 MHz (Switching)

Demodulation

DVB-T:	COFDM 2K mode QPSK, 16QAM, 64QAM FEC:1/2, 2/3, 3/4, 5/6, 7/8 IG: 1/4, 1/8, 1/16, 1/32 Bandwidth: 5, 6, 7, 8 MHz Max bit rate: 31.67 Mbps Min bit rate: 1 Mbps
DVB-T2:	COFDM 2K, 4K, 8K and 8K_ext QPSK, 16QAM, 64QAM, 256QAM LDPC FEC:1/2, 3/5, 2/3, 3/4, 4/5, 5/6 IG: 1/4, 1/8, 1/16, 1/32 Bandwidth: 1.7, 5, 6, 7, 8 MHz Max. bit rate: 46.4 Mbps
ISDB-T:	QPSK, 16QAM, 64QAM FEC:1/2, 2/3, 3/4, 5/6, 7/8 IG: 1/4, 1/8, 1/16, 1/32 Bandwidth: 6, 7, 8 MHz Max bit rate: 31.67 Mbps

Decoder

H.264:	Profile: Baseline, Main, High High 422 (supports 10 bits) Level: 4.1 - 4.2 Latency: 33 ms
MPEG-2:	Profile: 422P@HL, MP@HL, 422P@ML, MP@ML Latency: Low delay, 33 ms
Audio decoder:	MPEG-1 Layer I/II
Max. input bitrate:	320 Mbps
Genlock input:	Black burst or tri-level, Genlock loop

Decryption

BISS:	BISS-1 and BISS-E
AES:	AES-128 and AES-256 (Optional)

Data Channels

Data channel:	User data or GPS data
Data rate:	1,200 to 57,600 bps

ASI and IP

Outputs and Inputs:	ASI transport Stream (EN50083-9) Transport Stream over IP (Optional) (SMPTE2022/CoP3) - FEC Max. TS packets / IP packet: 7
---------------------	---

Video

Outputs:	2x3G-SDI, HD-SDI and SD-SDI HDMI (1.4a) 1xComposite video with down conversion (PAL/NTSC)
Formats:	1080p (1920x1080) - 23.98/ 24/ 25/ 29.97/ 30/ 50/ 59.94/ 60 Hz 1080i (1920x1080) - 50/ 59.94/ 60 Hz 720p (1280x720) - 23.98/ 24/ 25/ 29.97/ 30/ 50/ 59.94/ 60 Hz 576i (720x576) - 50 Hz 480i (720x480) - 59.94 Hz

Audio

Output :	HDMI / SDI embedded/ AES Digital / Analogue
Analogue:	2 Stereo/ 4 Mono
SDI embedded:	1 group (4 audio channels)
AES/EBU:	2 stereo channels

Control and Monitorization of the device

Control Interfaces:	Front panel and display Web Server Serial Control SNMP
Monitoring:	Decoder parameters Demodulation parameters Frequency and input level MER, BER, C/N Alarms, warnings, logbook and clock
Video & Audio	TFT Video screen 2" 2 x Stereo loudspeakers Earphone output

Autotracking antenna control

Antenna Control:	Local GPS, Remote GPS and Compass (Optional)
------------------	--

Power Supply

AC input:	100 to 240 V
DC input:	11 to 36 V

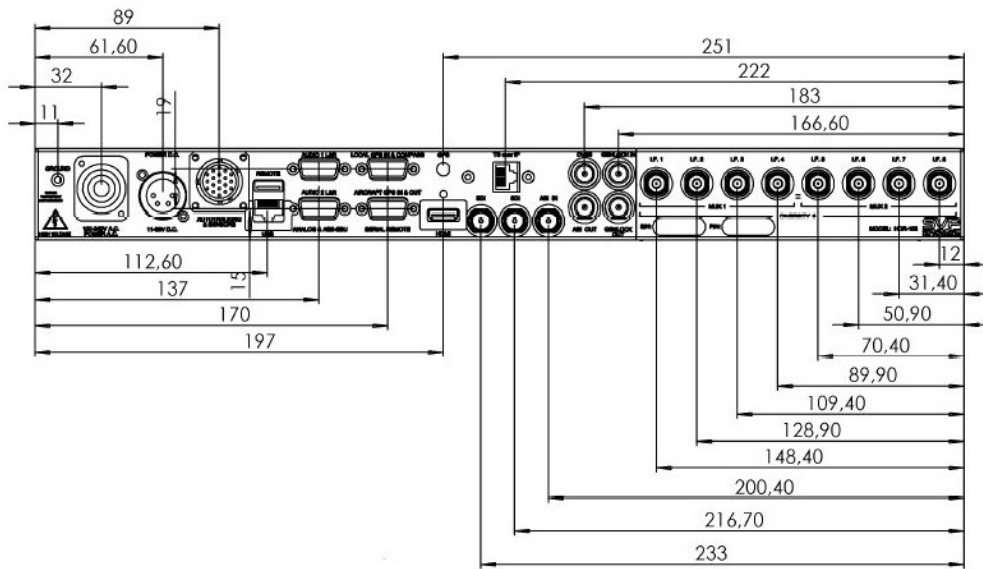
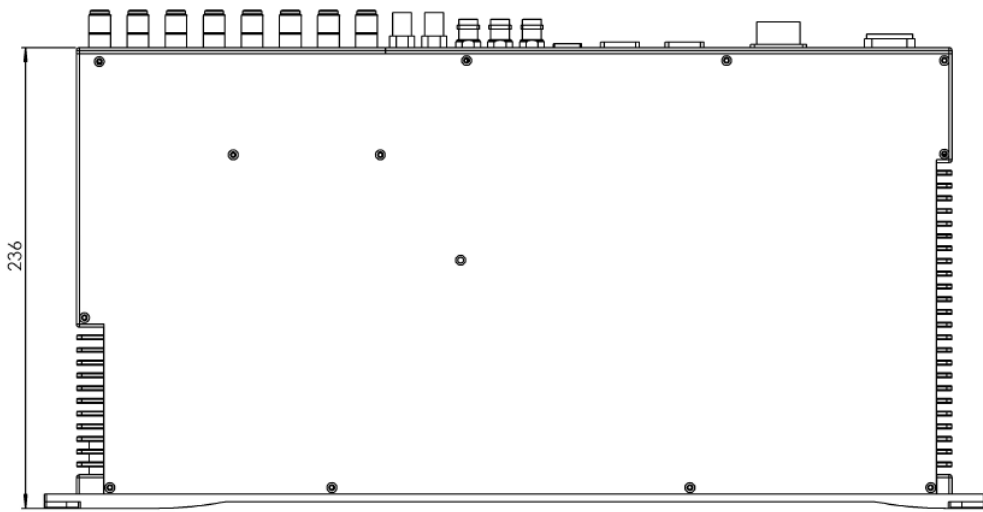
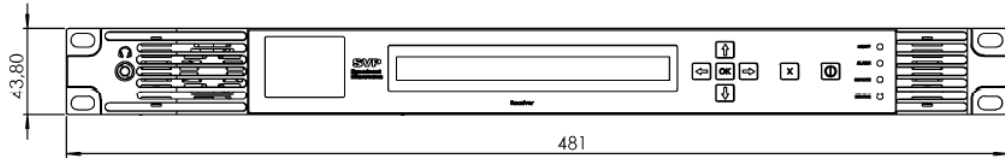
Mechanical

Size:	1 RU, 236 mm (9.3 inches) depth without connectors
Weight:	aprox.3 kg (6.6 lb)

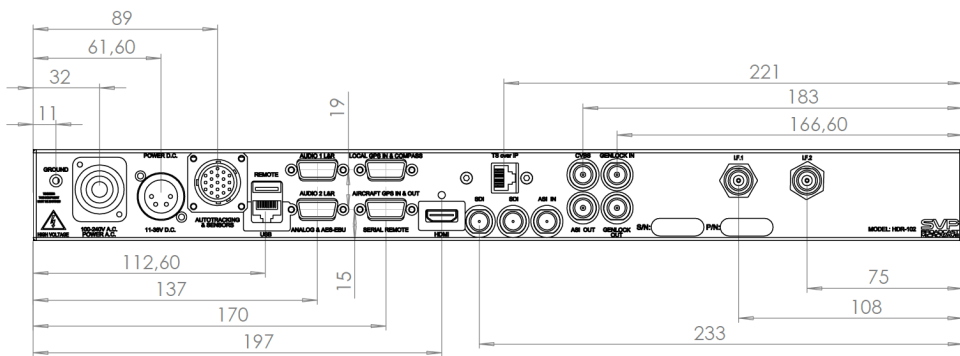
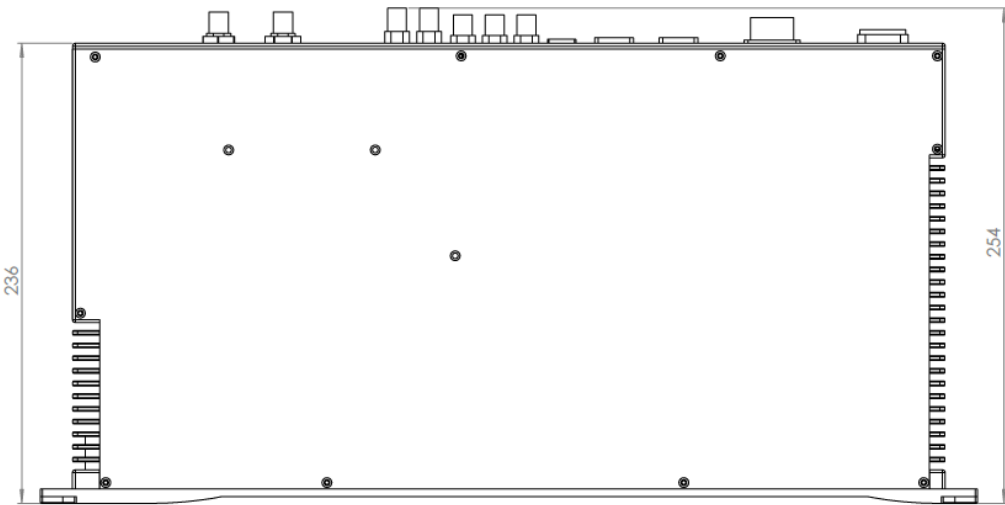
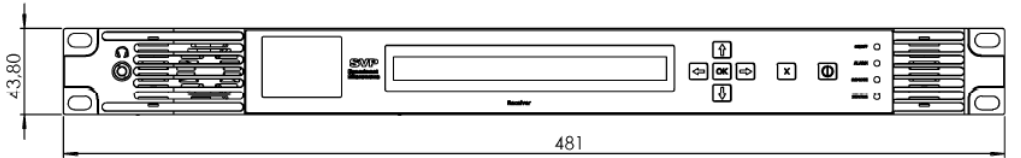
Environmental-

Temperature range:	-30 to 45°C
Humidity:	95%

Mechanical Dimensions HDR-108 & HDR-104

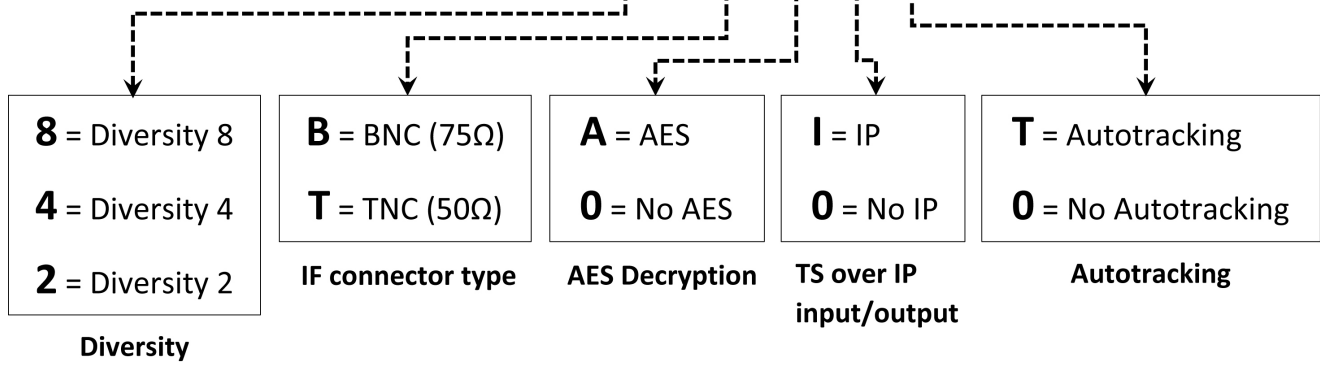


Mechanical Dimensions HDR-102



How to order :

H D R - 1 0 8 - B A I T



Design and specifications are subject to changes without prior notice. 01/19